UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/680,110	10/08/2003	Stephen James Field	0119/0027	4691

21395 7590 08/04/2009
LOUIS WOO
LAW OFFICE OF LOUIS WOO
717 NORTH FAYETTE STREET
ALEXANDRIA, VA 22314

EXAMINER	
OSTRUP, CLINTON T	

ART UNIT	PAPER NUMBER
3771	

MAIL DATE	DELIVERY MODE
08/04/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/680,110	FIELD, STEPHEN JAMES
	Examiner	**Art Unit**
	CLINTON OSTRUP	3771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 22 May 2009.
2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 3-12,15,16 and 18 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) 1-18 is/are rejected.
7)☒ Claim(s) 3-12 is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on 08 October 2002 is/are: a)☒ accepted or b)☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a)☒ All b)☐ Some * c)☐ None of:
1.☒ Certified copies of the priority documents have been received.
2.☐ Certified copies of the priority documents have been received in Application No. _____.
3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 7/23/09.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 22, 2009 has been entered.

As directed by the amendment, claims 3-12, 15-16, and 18 have been amended. Claims 1-2, 13-14, and 17 have been cancelled. Thus, claims 3-12, 15-16, and 18 are pending in this application.

Claim Objections

2. Claim 3-12 are objected to because of the following informalities:

3. A series of singular dependent claims is permissible in which a dependent claim refers to a preceding claim which, in turn, refers to another preceding claim.

A claim which depends from a dependent claim should not be separated by any claim which does not also depend from said dependent claim. It should be kept in mind that a dependent claim may refer to any preceding independent claim. In general, applicant's sequence will not be changed. See MPEP § 608.01(n). In the instant case, claims 3-11 depend from claim 15, which is not a preceding independent claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fink (4,960,412).

Fink discloses a valve figures 3-5) comprising: a deformable member (56) having a fluid passage (46) extending therethrough; an internal seal (seal formed at 46 when closed) of a deformable material defining a slit (col. 4, lines 13-25) extending transversely of said fluid passage; and a substantially rigid reinforcement member (50 & 58) extending parallel (58 is parallel at portion where it portion where it contacts slit 46) to said slit (46) on opposite sides (see figures 4 & 5) such that when a force is applied (to parts 50) externally along said slit said reinforcement member is bowed outwardly (figure 3) to open said slit.

Although Fink discloses the first valve as being formed of a number of flexible materials (col. 4, lines 13-15) and teaches that holding bosses (50) have a resistance force to any opening of the valve slit (46) and rib (58) is a stiffener for the valve disk; Fink lacks the specific teaching that the flexible valve material is different from the force resistant material of the bosses and stiffening material of the rib.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used a softer flexible material to form the seal and a stiffer material to form the bosses and the rib of the valve disk in order to optimize the properties of the respective portions of the device. Moreover, the selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. In re Leshin, 227F.2d 197, 125 USPQ 416 (CCPA 1960).

6. Claims 3-11, 15-16, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Russo (5,775,325) in view of Russo (6,923,184) and further in view of lund et al., (5,598,840).

Regarding claim 15, Russo '325 discloses a closed system suction catheter assembly comprising a machine end fitting (50); a patient end fitting (4-48); a suction catheter (44) secured at one end with said machine end fitting (see figure 4); and a flexible envelope (31) attached at one end with said machine end fitting (50) and at its other end with said patient end fitting (4-48), said flexible envelope (31) extending between the machine end fitting (50) and the patient end fitting (48) around the suction catheter (44), and wherein said patient end fitting (48) includes a valve (27), said valve having a deformable member (formed by 24, 25, 29 & 30) and the deformable member having a fluid passage (26) extending there through, and a normally-closed opening within said passage arranged such that it can be opened by external pressure applied to said deformable member (via 24 & 25). Russo '325 discloses the deformable member as being between a first position (normally closed) at which no pressure is applied to 24 & 25 and an second (open) position which pressure is applied to 24 & 25.

Although Russo '325 discloses applying pressure via hand manipulation (figure 7) to open the valve (27), and Russo '325 discloses a passage (26) arranged such that it can be opened by external pressure (via hands) applied to said deformable member (formed by 24, 25, 29 & 30); and an external member (hands) displaceable on and separate from said deformable member (formed by 24, 25, 29 & 30) with respect to said deformable member between a first position (closed) at which said external member (hands) can be released and in which said opening through said deformable member remains substantially closed and a second position (open) in which said opening is opened (when force is applied by hands) and remains open (until pressure is released) such that, when the external member is in the second (open) position the suction catheter can be advanced and retracted the suction catheter is advanceable and retractable through the passage in the deformable member (See: figures 6 & 7 of Russo '325, wherein the suction catheter is retracted in figure 6 and advanced in figure 7 when the valve is in the opened position); Russo '325 lacks the specific teaching of a machine end fitting including a suction control valve operable to control suction applied by said suction catheter or an external member for maintaining pressure to the deformable member in a second position in which said opening is opened and remains open when said external member is released even in the absence of any member extending within said passage.

Russo '184 teaches a suction control valve at the machine end that includes a suction control valve (10) operable to control suction applied by said suction catheter.

lund teaches a valve assembly (400) with a slidable ring (450) that opens and closes the valve assembly by sliding a ring over a tubular member. See: figures 6 & 7. The ring (450) can be released and the valve will remain open.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used a suction control valve at the machine end, as taught by Russo '184; and a sliding ring (450), as taught by lund, to apply pressure to a deformable member (24 & 25) disclosed by Russo '325 to maintain the valve in the open position when the ring is released because of the reasonable expectation of obtaining a valve that can be rapidly opened, and remain open, without having to maintain constant manual contact with the valve assembly wherein the suction control can be adjustably maintained by the valve at the machine end of the device.

Regarding claim 3, the ring taught by lund is an external member that is in the form of a collar which would embrace the deformable member (via 24 & 25).

Regarding claim 4, the ring taught by lund is an external member that is displaceable by sliding it lengthwise. See: figures 6 & 7 of lund.

Regarding claim 5, the combined references teach a the ring of lund which as it is slid back and forth to provide and release pressure to (24 & 25) the valve would open and close depending on the position of the ring. Thus, the valve would either be to one side of the valve or align with the valve (when ring is applying pressure).

Regarding claim 6, Russo '325 discloses a rigid housing (22) externally of said deformable member (formed by 24,25, 29 & 30) and wherein a part of said deformable member (24 & 25) projects outwardly through an opening in said rigid housing for engagement by the external (ring) member of lund.

Regarding claim 7, Russo ‘325 discloses a deformable member (formed by 24, 25, 29 & 30) that has a part with an inclined surface arranged for engagement by said external member (See figure 7 between the thumb and fingers).

Regarding claim 8, Russo ‘325 discloses a housing with two openings (where 24 & 25 protrude) located opposite one another, wherein said deformable member (formed by 24, 25, 29 & 30) has two pads (24 & 25) projecting outwardly through the openings, and the two pads each have an inclined external surface (Figures 8, 10 & 11) which are shaped for engagement by the ring (450 of Iund) wherein the external member (ring) when slid over the pads (24 & 25) would push inwardly towards one another thereby opening said normally closed opening. See: figures 8, 10 & 11.

Regarding claim 9, Russo ‘325 discloses a normally-closed opening (28) as a slit extending diametrically of said passage. See: figures 8-12.

Regarding claim 10, Russo ‘325 discloses a deformable member that is generally tubular (see figures 8-12) and has a transverse section extending across its diameter and formed integrally with said deformable member and wherein the slit (28) is provided in the transverse section. Although Russo ‘325 does not specifically disclose a transverse section as a web, the transverse section of Russo ‘325 provides a similar function as that claimed and using a web is a design consideration well within the skill of one having ordinary skill in the art.

Regarding claim 11, Russo ‘325 discloses a substantially rigid reinforcement member (29 & 30) extending parallel to said slit (see figures 8-10) on opposite sides such that when a force is applied externally along said slit (28) said reinforcement member (29 & 30) is bowed outwardly to open said slit (see: figures 10-11).

Regarding claim 16, Russo ‘325 discloses a cleaning chamber (34) located in said patient end fitting, wherein said valve (27) is located towards a patient side of said cleaning chamber and wherein said valve is operable to allow extension of said suction catheter and is closable substantially to isolate said cleaning chamber from the patient and enable cleaning of said catheter. See: figures 6-7.

Regarding claim 18, the combined references teach a closed system suction catheter assembly (Figures 1, 4-7 of Russo ‘325) having a suction catheter (44 of Russo ‘325), a machine end fitting (53 of Russo ‘325) that would include a suction control valve (Russo ’184 teaches a suction control valve at the machine end that includes a suction control valve (10) operable to control suction applied by said suction catheter) arranged to control suction applied to a catheter, a patient end fitting (48 of Russo ‘325) having a sliding seal (42 of Russo ‘325) through which said suction catheter can be advanced and retracted, and a flexible envelope (31 of Russo ‘325) extending between said machine end fitting and said patient end fitting and enclosing said catheter between said fittings, wherein said patient end fitting includes a cleaning chamber (34 of Russo ‘325) on a patient side of said sliding seal (42 of Russo ‘325), said cleaning chamber including an inlet (35 of Russo ‘325) for cleaning fluid and a valve (27 of Russo ‘325) , and wherein said valve includes a tubular deformable member (formed by 24, 25, 29 & 30 of Russo ‘325), said deformable member having a fluid passage (26 of Russo ‘325) extending there through, a closure member (27 of Russo ‘325) extending across said fluid passage and having a slit (28 of Russo '325) normally closed to isolate said cleaning chamber from the patient and lund teaches an external collar (450 of lund) slidable along a tubular member between a first position in which said slit remains substantially closed when the collar is released and a second position in which said collar applies pressure to said tubular member (via 24 & 25 of Russo '325) to open the slit and said slit remains open when the collar is manually released to allow the catheter to be advanced from said cleaning chamber even in the absence of any member extending within said passage until the collar(ring) is manually moved to the first position.

Response to Arguments

7. Applicant's arguments with respect to claims 3-12, 15-16, and 18 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Taylor (6,766,824) discloses a valve that is opened and closed by a ring member.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CLINTON OSTRUP whose telephone number is (571)272-5559. The examiner can normally be reached on Monday-Friday.

10. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on (571) 272-4835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Clinton Ostrup/
Examiner, Art Unit 3771

/Justine R Yu/
Supervisory Patent Examiner, Art Unit 3771